

CLAIMS

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1. A recording medium having n recording regions adapted for recording n partial portions, from one partial portion to another, from sampled data generated on sampling audio signals from a sound source, based on a pre-set sampling frequency, said n partial portions including the entire audio signals.
 2. The recording medium according to claim 1 wherein said pre-set sampling frequency is 44.1 kHz.
 3. The recording medium according to claim 1 reproducible by a disc reproducing apparatus employing a light beam having a wavelength of approximately 780 nm.
 4. The recording medium according to claim 1 having first and second recording layers in which said sampling data is separated into two partial portions for recording.
 5. The recording medium according to claim 1 wherein said partial portions are independent partial portions making up said audio signals.
 6. The recording medium according to claim 1 wherein said portions represent accompaniment music of a lyric.
 7. The recording medium according to claim 1 wherein there is recorded discrimination data for discriminating the combination of said n partial portions.
 8. A recording apparatus for recording audio signals on a recording medium having a plurality n of recording regions, where $n \geq 2$, comprising:

sampling means for sampling signals separated into plural n partial portions from audio signals from a sound source, said n partial portions including the audio

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signals in their entirety, and

recording means for recording digital data obtained from said sampling means in said n recording regions of said recording medium.

9. The recording apparatus according to claim 8 wherein said pre-set sampling frequency is 44.1 kHz.

10. The recording apparatus according to claim 8 wherein said audio signals are recorded on said recording medium to be reproducible by a disc reproducing apparatus employing a light beam having a wavelength of approximately 780 nm.

11. The recording apparatus according to claim 8 wherein said recording medium is a disc-shaped recording medium having first and second recording layers in which said sampling data is separated into two partial portions which are recorded.

12. The recording apparatus according to claim 8 wherein said partial portions are independent partial portions making up said audio signals.

13. The recording apparatus according to claim 8 wherein said partial portions represent accompaniment music of a lyric.

14. A recording method for recording audio signals on a recording medium having a plurality n of recording regions, where $n \geq 2$, said method comprising the steps of:

sampling signals separated into plural partial portions from audio signals from a sound source with a pre-set sampling frequency, said n partial portions including the audio signals in their entirety, and

recording digital data obtained from said sampling means in said n recording

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15. A reproducing apparatus for reproducing audio signals from a recording medium on which sampled data generated on sampling audio signals from a sound source at a pre-set sampling frequency are recorded in n recording regions as the sampled data are separated into n partial portions including the audio signals in their entirety, said reproducing apparatus comprising:

readout means for reading out signals from said n recording regions of said recording medium; and

control means for controlling whether signals of each of said n recording regions read out by said readout means are to be reproduced selectively or signals of at least two of the entire regions are to be synthesized and reproduced.

16. The reproducing apparatus for a recording medium according to claim 15 wherein said readout means reads out the entire recording regions, said control means synthesizing data obtained from the respective recording regions to reproduce the synthesized data.

17. The reproducing apparatus for a recording medium according to claim 16 wherein said readout means includes a plurality of readout mechanisms.

18. The reproducing apparatus for a recording medium according to claim 16 wherein said readout means uses a sole readout mechanism for reading out said n recording regions and wherein said control means causes said readout means to read out the recording regions at a rate not less than n times the rate required by audio signals

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recorded in the respective regions to buffer the read-out audio signals to output the buffered signals when the volume of the buffered signals reaches a pre-set volume.

19. The reproducing apparatus for a recording medium according to claim 16 wherein, if said recording medium is a disc-shaped recording medium having two recording layers, with $n = 2$, said control means uses said readout means to reproduce one layer, said control means in reproducing another layer shifts to a point temporally previous to a replay end time point of said one layer to initiate reproduction, said control means after reproduction to a point temporally posterior to the replay end time point shifting reproduction to said one layer.

20. A reproducing method for reproducing audio signals from a recording medium on which sampled data generated on sampling audio signals from a sound source at a pre-set sampling frequency are recorded in n recording regions as the sampled data are separated into n partial portions including the audio signals in their entirety, said reproducing apparatus comprising the steps of:

reading out signals from said n recording regions of said recording medium; and

controlling whether signals of each of said n recording regions of said recording medium read out are to be reproduced selectively or signals recorded in at least two of the entire regions are to be synthesized and reproduced.

21. A recording medium at least comprising:

a first recording region in which a first portion of audio signals supplied is recorded; and

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a second recording region in which a second portion of audio signals supplied is recorded.

22. The recording medium according to claim 21 wherein the recording medium includes a first recording layer in which said first recording region is provided and a second recording layer arranged in superposition on said first recording layer, said second recording region being provided in said second recording layer.

23. The recording medium according to claim 21 wherein said first recording region and said second recording region are arranged so that one of said first and second recording regions is on an inner peripheral side of the other of said first and second recording regions.

24. The recording medium according to claim 21 wherein one of said first and second portions of said audio signals supplied is a signal including a lyric, with the other portion being a signal including the accompaniment music.

25. The recording medium according to claim 21 wherein there is recorded a discrimination signal indicating at least whether or not said first and second portions recorded in said first recording region and in said second recording region at least are to be summed or subtracted.

26. A method for reproducing a recording medium at least having a first recording region in which a first portion of audio signals supplied is recorded and a second recording region in which a second portion of said audio signals supplied is recorded, said recording medium having recorded thereon a discrimination signal indicating

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Conf/ves whether or not said first and second portions at least are to be summed or subtracted,
said method comprising the steps of:

reading said first portion and said second portion from said first recording region and said second recording region, respectively;

reproducing the first and second portions read out; and

outputting the first portion reproduced and the second portion reproduced based on said discrimination signal read out from said recording medium.

27. The reproducing method according to claim 26 wherein, if said discrimination signal read out from said recording medium indicates summing said first and second signals and reproducing the summed signals, said first portion read out from said first recording region and said second portion read out from said second region are summed together and the resulting signal is reproduced.

28. The reproducing method according to claim 26 wherein, if said discrimination signal read out from said recording medium indicates subtracting said first and second signals and reproducing the resulting subtraction signals, said first portion read out from said first recording region and said second portion read out from said second region are processed with subtraction and the resulting signal is reproduced.

29. The reproducing method according to claim 26 wherein said first portion is read out by sole readout means from said first recording region of said recording medium, processed for replay and buffered and wherein said second portion is read out from said second recording region, processed for replay and buffered.

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30. The reproducing method according to claim 29 wherein signals obtained on reproducing the buffered first portion and signals obtained on reproducing the buffered second portion are processed and reproduced based on a discrimination signal read out from said recording medium.

31. The reproducing method for a recording medium according to claim 26 wherein one of said first portion of audio signals recorded in said first recording region of said recording medium and the second portion of audio signals recorded in said second recording region of said recording medium is a signal including a lyric, with the other portion being a signal including an accompaniment music.

32. An apparatus for reproducing a recording medium at least having a first recording region in which a first portion of audio signals supplied is recorded and a second recording region in which a second portion of said audio signals supplied is recorded, said recording medium having recorded thereon a discrimination signal indicating whether or not said first and second portions at least are to be output on summation or on subtraction, said apparatus comprising:

readout means for reading said first portion and said second portion from said first recording region and said second recording region, respectively;

first reproducing means for reproducing said first portion read out;

second reproducing means for reproducing said second portion read out; and

processing means for processing said first portion reproduced and said second portion reproduced based on said discrimination signal read out from said recording

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medium as output signal from said first reproduction means and output signal from said second reproducing means.

33. The reproducing apparatus according to claim 32 wherein, if said discrimination signal read out from said recording medium indicates summing said first and second signals and reproducing the summed signals, said first portion read out from said first recording region and said second portion read out from said second region are summed together and the resulting signal is reproduced.

34. The reproducing apparatus according to claim 32 wherein, if said discrimination signal read out from said recording medium indicates processing said first and second signals with subtraction and reproducing the resulting subtraction signals, said first portion read out from said first recording region and said second portion read out from said second region are processed with subtraction and the resulting signal is reproduced.

35. The reproducing apparatus according to claim 33 wherein said first reproducing means includes a first reproducing processing unit for reproducing said first portion read out by said readout means from said first recording region and a first buffer memory for buffering output data from said first reproducing processing unit, and wherein said second reproducing means includes a second reproducing processing unit for reproducing said second portion read out by said readout means from said second recording region and a second buffer memory for buffering output data from said second reproducing processing unit.

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36. The reproducing apparatus according to claim 32 wherein said recording medium has recorded thereon a discrimination signal indicating whether or not said first and second portions recorded in said first and second recording regions at least are to be summed or subtracted for outputting.